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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,084	10/29/2003	Henry J. Bergen	GEN001	5941

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EXAMINER	
MAMMEN, NATHAN SCOTT	
ART UNIT	**PAPER NUMBER**
3671	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/696,084	BERGEN, HENRY J.	
	Examiner	Art Unit	
	Nathan S Mammen	3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 6 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description and enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Additionally, the claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant claims that the stubble is darkened by genetically altering the color of the stubble. However, Applicant's specification fails to describe how this genetic altering is accomplished. Genetic altering, or genetic engineering, is a complex endeavor. Applicant's two-sentence description of how a plant would be genetically altered does not convey to a reasonable artisan that the Applicant actually had possession of the genetically altered crop. Furthermore, even if Applicant did have possession, the description fails to convey to others in the art how to "make" their own genetically altered crop.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7-11 are rejected under 35 U.S.C. 102(a) as being anticipated by the "Managing Crop Residue in the Red River Valley" article.

The "Managing Crop Residue" article discloses a method of no-till farming. Inherent in no-till farming are the steps of forming a furrow and introducing the seed within the furrow (see, e.g., the "Missouri No-Till Planting Systems" publication below). The article discloses that it is known to provide a darkened cultivated-crop stubble by two ways. First, the article discloses that it is known to burn the stubble. Fields in which stubble have been burnt leave blackened stubble (both unburnt but charred stubble and stubble ash). Thus, the darkened stubble absorbs energy radiation. Second, the article discloses that, as an alternative to burning stubble, liquid hog manure can be applied to the stubble. This liquid hog manure darkens the stubble by the pigments within the hog manure. The stubble present is from cultivated crops. The method disclosed by the article is applicable to all cereal grains, which inherently includes wheat, barley, oats and rice. The stubble, no matter what color or pigment, will inherently absorb energy radiation.

5. Claims 1-4, 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by the "Missouri No-Till Planting Systems" publication.

The "Missouri No-till Planting Systems" publication (hereinafter, the "Missouri publication") discloses a method for no-till farming. The method comprises forming a furrow and introducing seeds within the furrow. The Missouri publication also discloses that before these steps are performed, the stubble is darkened by application of a burn-down herbicide, such Roundup. Roundup kills plants, turning them brown, thus darkening them. Stubble, no matter what color, absorbs energy from the sun. The Missouri publication also discloses that the method is performed using wheat as the stubble from the cultivated crop. Wheat is a cultivated crop.

6. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,765,262 to Morgan.

The Morgan '262 patent discloses a drill for performing a method of no-till farming. The method is performed in cultivated crop stubble. The method comprises forming a furrow and introducing seed into the furrow. Due to the time pressures faced in agriculture, where there is a window of opportunity for sowing seed, the drill of the Morgan '262 patent will inevitably be used at night. Thus, the stubble would be darkened. But the stubble will still absorb energy radiation (e.g. heat) from the ambient air.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the "Missouri No-Till Planting Systems" publication.

As noted above, claims 6 and 12 are rejected under 35 U.S.C. 112 for lack of written description and enablement. However, even if one of ordinary skill in the art would have known how to genetically modify the stubble to change the color, providing genetically modified stubble to achieve a dark color would have been obvious, since the Missouri publication is not limited to particular crop residues but is applicable to all crop residues.

Response to Arguments

9. Applicant's arguments filed 10/1/04 have been fully considered but they are not persuasive.

Regarding the above rejection under 35 U.S.C. 112, Applicant's arguments fail to provide evidence that, at the time the instant application was filed, Applicant was in possession of the invention. In fact, Applicant's arguments strengthen the conclusion that Applicant was not in possession of the claimed invention: Applicant states "one approach of generating plants with darker straw would be to first find the plants that naturally have a darker straw and analyze which genes are responsible. Remarks, page 4. The wording of that sentence and the following paragraph (e.g., "gene coding...would be targeted," "genes would be selected," "a promoter would be used") strongly suggests that Applicant has not actually identified the genes responsible for darkened stubble and, therefore, that Applicant has not actually genetically altered the color of stubble. By way of comparison, Applicant's attention is directed to the

newly cited patents issued to Chiang et al. and Jorgensen et al., which provide examples of an enabling disclosure for genetically altering the color of plants.

Applicant's arguments with respect to the "Missouri No-Till Planting Systems" publication are non-persuasive. This publication was published in February of 1997 and thus has a publication date exceeding a year prior to the filing of the instant application; therefore, the Missouri publication is prior art under 35 U.S.C. 102(b), as noted above.

Applicant's arguments with respect to the Morgan '262 patent are unpersuasive. Although Applicant may intend for "darkened" to refer to a change in color of the stubble of the cultivated crop, that is not what Applicant claimed, and "the name of the game is the claim." In re Hiniker Co., 150 F.3d 1362, 1369 (Fed. Cir. 1998). Moreover, "[p]atent application claims are given their broadest reasonable interpretation during examination proceedings, for the simple reason that before a patent is granted the claims are readily amended as part of the examination process." Burlington Indus., Inc. v. Quigg, 822 F.2d 1581, 1583 (Fed. Cir. 1987). The first Office action placed Applicant on notice that the limitation "darkened" in the claims could reasonably be interpreted to include darkened by nightfall, yet Applicant has failed to distinguish over that interpretation.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Applicant's amendment adding to the limitations of the independent claims necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS**

MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Mammen whose telephone number is (703) 306-5959. The examiner can normally be reached Monday through Thursday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at (703) 308-3870. The fax number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-1113.

Thomas B. Will
Supervisory Patent Examiner
Group 3600

NSM
1/8/05

Nathan S. Mammen